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Tilman Lorenz

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BSH HOME APPLIANCES CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

PERRIN, JOSEPH L

ART UNIT

PAPER NUMBER

1792

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/774,978	Applicant(s) LORENZ ET AL.	
	Examiner Joseph L. Perrin, Ph.D.	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19,21,26-29 and 37-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19,21,26-29 and 37-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 March 2008 has been entered.

Claim Construction

2. The term "coupled", applied repeatedly throughout the instant claims, is construed to read on any coupling, both direct and indirect, within the term's general meaning. See www.wikipedia.org, which defines couple/coupling as broadly encompassing "a connection or joint between two things".

Response to Arguments

3. Applicant's arguments filed 28 March 2008 have been fully considered but they are not persuasive.

4. Regarding the rejection of claim 40 under 112, second paragraph, applicant argues that in view of the specification, namely page 8, lines 1-16, one having ordinary skill in the art would understand the claim, notwithstanding the fact that 1) there is no structure positively recited in the claim and 2) page 8, lines 1-16 further supports the

Examiner's position that there are essential structural elements required to perform the intended use, i.e. omitted, which fail to interrelate the essential elements and fail to particularly point out and distinctly claim the invention. See *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); *In re Collier*, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968). In the instant case, it is entirely unclear how the movement can be converted without the essential structure described on page 8 of the specification. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Limitations appearing in the specification but not recited in the claim should not be read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003). The Examiner further points out that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). (emphasis in original) Clearly, this recitation of operation of the apparatus (i.e. converting rotational to translational) fails to recite any interrelated structure. Arguably, such recitation unsupported by the interrelated essential structure (e.g. on page 8) is an improper broadening of scope which could be performed by other structures not contemplated by applicant or supported in the original disclosure (i.e. the scope of the claim encompasses structural configurations other than that on page 8 of the specification which not contemplated by applicant at the time of invention). Thus, this

improper broadening of scope may be construed as new matter as claim 40 was not an originally filed claim.

In response to the rejection and the Examiner's request to include the interrelated essential elements which perform this broadly claimed function, applicant defies the Examiner's position by further broadening the claim to remove the term "rotational". However, as a result of this amendment the claim now recites additional new matter as the original disclosure as filed provides no support for the claimed lever device scope which "converts movement of said linen treatment device to translational movement at said sensor". Simply put, while the original disclosure supports converting rotational movement (i.e. only rotational movement) into translational movement with the interrelated structural elements on page 8 of the specification, the original disclosure fails to support other movements into translational movement within the scope of amended claim 40 or any other structural configurations which support this broadened scope. Applicant is urged to amend claim 40 to again include "rotational" movement (to address the new matter issue) and to include the interrelated essential structural elements which, when combined, appear to be a point of novelty in the instant application. Absent such amendment, the claims will be construed as broadly as the claimed scope allows under the law and remain rejected under §112.

Response to the rejection under §103 over SMITH in view of BUGNACKI

A. Regarding independent claims 19 and 29, applicant argues that there is no motivation for the combination. In response to applicant's argument that there is no motivation/suggestion to combine the references, it is noted that the Supreme Court

decision in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007) forecloses a teaching, suggestion, or motivation (TSM) test as the only rationale in obviousness determination. As evidenced in the rejection, each and every structural limitation is known in the art. Since both SMITH and BUGNACKI are directed to washing machines with sensors, simply substituting one sensor for the other to arrive at applicant's claimed invention would have been well within the level and skill generally available to one having ordinary skill in the art. Notwithstanding these facts, BUGNACKI further provides motivation in the use of a temperature profile measuring sensor over conventional mechanical sensors in order to provide an inexpensive, high-reliable sensor and to avoid stiction problems associated with mechanical sensors (see page 9 of BUGNACKI). It is noted that applicant has failed to address this explicit motivation provided in BUGNACKI in attempting to argue no motivation to combine the references. The Examiner further notes that applicant has not established on this record any unexpected or unpredictable results and no such results are readily apparent on this record.

Regarding applicant's argument that BUGNACKI teaches away from the combination with SMITH by adding moving elements, this is not persuasive because simply adding additional elements or increasing the complexity of a system is a conventional practice in technological advances and typically the basis for improvements. For instance, automating a manual apparatus by adding elements and increasing complexity, such as an electronic controller, is simply a technological advancement and it is well-settled that such technical advancements are obvious modifications absent secondary conditions. For instance, broadly providing a

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mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Similarly, the advanced technological aspect of the claimed temperature profile sensor is known (e.g. BUGNACKI) and the substitution of said sensor for another sensor (e.g. SMITH), both capable of sensing load imbalance, involves only routine skill in the art absent a showing of unexpected results or unpredictability.

B. Applicant further argues that the Examiner fails to establish a *prima facie* case of obviousness. The Examiner disagrees and takes the position that a *prima facie* case of obviousness has been established and that the burden has shifted to applicant to refute the rejection. Specifically, applicant alleges that such combination would “either (1) change the principle of operation of the Smith et al. reference, or (2) require a substantial reconstruction and redesign of the elements...as well as a change in the basic principle under which the Smith et al. reference construction was designed to operate.” However, the Examiner emphatically disagrees and asserts that applicant is grossly underestimating and ignoring the level of ordinary skill in the art. It is entirely unclear from applicant’s assertion how substituting one known washing machine sensor for another known washing machine sensor would require a “substantial redesign” or “change in the basic principle” of the prior art as both are directed to the washing machine art and use sensors, or how one skilled in the art, knowing both sensors, would not find it within the level and skill generally available to one of ordinary skill in the art, to improve the washing machine of SMITH by substituting a more technologically advanced sensor, such as that disclosed in BUGNACKI. An obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a

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case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not. *Leapfrog Enterprises Inc. v. Fisher-Price Inc.*, 82 USPQ2d 1687 (Fed. Cir. 2007); see also *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007). In the instant case, the simple substitution of equivalent washing machine sensors is *prima facie* obvious and well within the level and skill generally available to one having ordinary skill in the art.

C. Applicant further argues that the combination of SMITH and BUGNACKI would not result in the claimed invention. In doing so, it appears applicant is requiring the bodily incorporation of the sensor in BUGNACKI into the apparatus of SMITH by requiring the complete substitution of the sensor housing and structure associated therewith in SMITH and the sensor of BUGNACKI. However, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In the instant case, SMITH discloses a sensor comprising a switch assembly for sensing imbalance, the sensor including ball (56), which is connected to a lever (46) in housing (38). BUGNACKI is relied upon for the specific teaching of a temperature profile measuring sensor used to measure inertia, tilt and vibration in a washing machine. Thus, the combination is for the sensor of SMITH (i.e. switch components) and the sensor of BUGNACKI, not for the complete substitution of the BUGNACKI sensor with the entire sensor housing of SMITH, as alleged by applicant (see instant rejection). As clearly

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described in SMITH, there is disclosed a sensor housing with a lever and other sensor components including ball (56) at an end of the lever wherein the movement of the ball on the lever is indicative of an imbalance condition. Thus, simply substituting the switch components, including said ball, with the sensor of BUGNACKI (used for the exact same purpose of indicating imbalance) would result in applicant's claimed invention as the movement of the BUGNACKI sensor detects load imbalance. Contrary to applicant's assertion, the incorporation of the technologically advanced sensor of BUGNACKI as the imbalance sensor for the switch mechanism of SMITH would simply be an improvement in sensing load imbalance using the newer technology, and the substitution of one imbalance sensor for another to yield the predictable results of sensing a load imbalance in a washing machine is *prima facie* obvious. Again, applicant is silent with respect to any showing or evidence of unexpected results or unpredictability, and absent such showing it would be *prima facie* obvious to substitute one imbalance sensor for another in the washing machine art to achieve said predictable results. As previously discussed, the Examiner notes that the structural components used to convert rotational movement into translational movement on page 8 of the specification do not appear to be disclosed in the cited prior art.

Regarding the dependent claims, applicant argues reason of same for claim 19 which are not persuasive for reasons of record.

Regarding the rejection of claims 37-38 over SMITH and BUGNACKI, applicant recites claims 37 and 38 and again argues that the combination of SMITH and BUGNACKI requires "replacing the whole sensor 32 of Smith et al." As discussed

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previously, the whole sensor housing replacement is not required, nor is it used in making the combination of SMITH and BUGNACKI. Thus, all arguments with respect to replacing the entire sensor housing of SMITH are not persuasive, including the arguments for claims 37-38, because this is not how the claims are rejected (see instant rejection). As each and every structural limitation claimed is disclosed in SMITH and BUGNACKI and *prima facie* obviousness has been established, the rejection over SMITH and BUGNACKI is maintained for reasons of record.

Regarding claim 39, applicant alleges that “lever devices 46 and 76 are biased at an angle with respect to a rotational axis of the alleged linen treatment device”. It appears applicant is solely arguing the static state of the levers. However, this is not the limiting scope of the invention as claimed. Unequivocally, during the dynamic state of the levers the levers are parallel with the rotational axis of the washing machine. For instance, the movement arrow for lever 46 clearly shows the movement through the parallel position. Notwithstanding these facts, it is entirely unclear how making the levers parallel renders the claim patentable as the levers in Figure 2 of SMITH are substantially parallel as shown in the static state and a simple, slight adjustment to make them exactly parallel in the static state would be nothing short of a simple reconfiguration/rearrangement to one having ordinary skill in the art. Absent a showing of unexpected results or unpredictability, claim 39 is deemed *prima facie* obvious for at least these reasons.

Regarding claim 40, applicant firstly argues that “claim 40 does not merely recite an intended use, and also does not fail to provide adequate structure to further define the claimed linen treatment device.” However, applicant fails to point to even a modicum of structural language in the claim to support their position. Instead, applicant points to page 8 and Figures 3-4 to support their position. Obviously, this is not persuasive because the features upon which applicant relies (i.e., the structural components on page 8 and Figures 3-4) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further regarding claim 40, applicant secondly argues that sensor 32 “does not translate along the longitudinal axis 30” but “[i]nstead, the sensor 32 is fixed to the motor and transmission unit 24 by an upper mounting plate 34.” First, applicant is arguing limitations which are not being claimed, namely translating along the longitudinal axis. Second, it appears applicant is arguing the claimed combination based on the substitution of the entire sensor housing (32) of SMITH rather than the switching mechanism (ball 46 and relative switch structure) relied upon in the rejection. As can be plainly seen in the Figures of SMITH, the levers of SMITH do not rotate but rather translate the ball/switch (e.g. pivot or orbit, as opposed to rotation). Thus, in combining BUGNACKI and SMITH, as in the instant rejection, the sensor of BUGNACKI would translate on the lever (46) of SMITH (note that www.wikipedia.org defines translation as “movement that changes the position of an object, as opposed to rotation”). As can be clearly seen in Figure 2, this is precisely what the lever does when

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pivoting. Accordingly, the lever of SMITH is fully capable of performing the claimed intended use and claim 40 is deemed unpatentable over the combination of SMITH and BUGNACKI.

Response to the rejection under §103 over YOUN, SMITH and BUGNACKI

Regarding claim 19, applicant repeats arguments from above which are not persuasive for reasons of same. Additionally, applicant argues that the claimed combination fails to disclose "...said sensor coupled to a soapy water container". The Examiner disagrees. As previously noted and evidenced by Figure 1 of SMITH, the sensor housing (32) and all sensor components associated therewith (including levers) are connected to motor which is directly connected to the washing machine container (21). While such structure is an indirect connection, such structure reads on the "coupled" language as claimed as the function is exactly the same, i.e. the sensing of imbalance by being connected, directly or indirectly, to the wash tub. Simply put, there is nothing in the broad recitation of two structures being "coupled" which requires direct contact but rather simply a connection between the two structures. This is precisely what is shown in Figure 1 of SMITH. Even if, assuming *arguendo*, one were to require the claimed sensor to be "directly coupled" to the wash tub, this would be an obvious rearrangement since such rearrangement would produce the same predictable result of sensing a load imbalance as both configurations are connected to the tub in order to provide information indicative of sensing an imbalance. Thus, it is entirely unclear how the coupling of the sensor to the tub, either directly or indirectly, results in a patentable modification as both "coupling" configurations produce the same predictable result of

sensing an imbalance. As such, whether or not the sensor is directly or indirectly coupled to the washing machine does not appear to patentably distinguish because neither appears to produce anything unpredictable or unexpected (i.e. the result of sensing imbalance is predictable in both configurations).

Applicant further argues that YOUN does not teach the claimed sensor coupled to the soapy water container. This is not persuasive because the SMITH teaches such coupling and is relied upon for such teaching. Applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding new claims 41-58, as these claims are not yet under a rejection, no comment is deemed necessary. Any rejection(s) of these claims will be discussed in the body of the rejection(s).

For at least the foregoing reasons, the claimed invention is deemed *prima facie* obvious over the cited prior art and considered unpatentable. Applicant is urged to provide adequate structural limitations and any unexpected or unpredictable results to the claims to refute the *prima facie* obviousness and clearly point out how the claims patentably distinguish over the prior art of record.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 40 & 47-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 40 & 47, the recitation “converts movement of said [soapy water container or linen treatment device] to translational movement [at said sensor or of the sensor on the rail, respectively]. Note that neither claim 40 nor 47 are part of the original disclosure as filed. Accordingly, applicant's broadening the scope of claims 40 and 47 is considered new matter because said improper broadening includes any structural configuration, including those not contemplated by applicant or disclosed by applicant. While applicant provides a single structural embodiment which converts *rotational* movement into *translational* movement (i.e. a species as described on page 8, line 1 *et seq.*), applicant fails to provide any support for the broader scope of all structural configurations capable of converting “movement of a container to translational movement with respect to the sensor”. This broadening of scope reasonably conveys and evidences that applicant did not have possession of the claimed invention and all possible configurations associated therewith but rather only the configuration/embodiment reasonably described on page 8 of the original disclosure as filed. Accordingly, the broadening of scope outside the description in the specification constitutes new matter.

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 40 & 47-49 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. In claims 40 & 47, the omitted elements are: adequate lever structure which is capable of converting movement of the linen treatment device to translational movement of the sensor. Notwithstanding the fact that the claimed movement conversion is claimed without a modicum of structure constitutes new matter (see above), applicant's original disclosure is silent with respect to embodiment capable of performing such intended use other than with the essential structure associated with the embodiment of page 8. Without such structure, there is a gap between the elements on how the claimed apparatus is capable of performing such conversion via a lever. Thus, applicant has failed to particularly point out and distinctly claim their invention. Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
3. Clarification and correction are required.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 19, 21, 29 & 37-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over SMITH in view of BUGNACKI.

Re claims 19, 21, 29, 41, 42 & 50, SMITH discloses a washing machine with a lever device (46) and sensor (ball 56 and associated switch structure constituting a sensor), both the lever and sensor being coupled/connected to a washing machine tub (12), the sensor coupled/connected to the tub via the lever device, for the purpose of sensing load imbalance (see Figures 1-2 and relative associated text). Re newly added claim 40, the “wherein” clause is directed to intended use and fails to provide any adequate structure to further define the claimed washing machine, for instance, in the combination of such use language with structure of the lever device. Manifestly, the tub of SMITH provides rotational movement and the sensor with lever (46) provides sensing along translational axis (30) and therefore is fully capable of performing the intended use of claims 40 & 47. However, SMITH does not disclose the sensor as being a temperature profile measuring sensor. BUGNACKI teaches that is known to provide a washing machine with a temperature profile measuring sensor in order to provide an inexpensive, high-reliable sensor and to avoid stiction problems associated with mechanical sensors (see page 9).

Therefore, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted the mechanical sensor of SMITH with the temperature profile sensor of BUGNACKI in order

to achieve the aforementioned known advantages associated therewith. Moreover, there would have been a reasonable expectation of success in providing one washing machine imbalance sensor for another since both references are analogous art and the imbalance sensors are functional equivalents.

Regarding newly added claims 37-39, 43-46, SMITH discloses plural levers pivotable around a fulcrum (see levers connected to springs (64/84) and the levers connected to the sensor, the washing machine tub and the pivot connection of the levers readable on a fulcrum or hinge joint (provides same function of pivoting), which are connected to structure readable on a rail (44). Thus, the structure of claims 37-38 read on the sensor and lever device (32) of SMITH as claimed. Re claim 39, the levers are shown to be parallel to the rotational axis of the tub in SMITH (see Figures 1-2, which clearly illustrate such configuration).

Regarding claims 48-49, the position is taken that the washing machine tub of SMITH moves in all directions (e.g. x, y & z axis shown in Figure 1 as 28) and the relative movement of the tub and sensor reads on applicant's claimed invention.

6. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over YOUN in view of BUGNACKI and SMITH.

YOUN discloses a washing machine (100) with load sensor for sensing multiple parameters including imbalance and load size, a controller (130) for calculating the imbalance and load size, and a display device (140) for displaying the operating state of the washing machine with sense signal generation means for generating a fault sense

signal indicative of a machine fault (see entire document, for instance, Figure 2 and relative associated text and paragraph [0014]).

The combination of SMITH and BUGNACKI (see previous rejection) teach that it is known to provide a washing machine with a temperature profile measuring sensor as the imbalance detecting sensor in order to provide an inexpensive, high-reliable sensor and to avoid stiction problems associated with mechanical sensors. Therefore, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the washing machine of YOUN with the temperature profile sensing means of SMITH and BUGNACKI in order to achieve the aforementioned known advantages associated therewith. Moreover, there would have been a reasonable expectation of success in providing one washing machine imbalance sensor for another since the references are analogous art and the imbalance sensors are functional equivalents.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 8:00-4:30.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph L. Perrin/
Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1792

JLP